

**London Borough of Harrow**

**Draft Climate Change Strategy**

**For Public Consultation**

**January 2009**

# Contents

Foreword

Introduction

Section 1: Community and partners

    Planning and Development

    Domestic Energy

    Transport

    Water and Flooding

    Waste

    Biodiversity and the Natural Environment

    Food, Fair Trade and Sustainable Shopping

    Businesses and the Public Sector

Section 2: The Council's Footprint

Public Consultation

## Foreword

Harrow signed the Nottingham Declaration in July 2007. This strategy is our first attempt to bring together the various activities that the council is undertaking on climate change into a coherent strategy. We recognise that there is much to be done and the strategy will need to undergo change and development in the future as global, European and national legislation drives change.

The Earth's climate is changing and this is already affecting local weather events. We need to plan and act now to limit the scale of the change and to adapt to and mitigate some of the effects. Even if all global greenhouse gas emissions could be stopped today, the immense inertia in the Earth's climate systems means that changes to our climate for the rest of this century are unavoidable. Preparing for these inevitable changes is not an alternative to reducing our greenhouse gas emissions, but a parallel and complementary action.

Economically, fossil fuels such as oil and gas will also increase in price as world demand increases and capacity either lags behind or falls. Changes in the way we use fossil fuels are therefore inevitable and we need to prepare for a future where fossil fuel is expensive and its use restricted. If we do not prepare now future generations will face sudden and enormous changes, for which they will be un-prepared.

This Strategy is the first step in a long journey which all of us must make. The council is committed to playing its part as a community leader. However the success of the Strategy depends on the whole community taking the threat of climate change seriously and, together, making the changes that are necessary.

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## Introduction

- 1.1 This strategy sets out how Harrow as a council and community can take action on climate change. Addressing climate change requires all of us to work together to make changes to the way we live as individuals and communities so that the well-being of future generations is secured.

Excluding aviation and shipping, as a nation we use 31% of fossil fuel for power generation, 22% for road transport, 20% for industry, 15% for residential use and heating and 12% for other uses.

[N.b. 75% of our electricity is generated from fossil fuels (coal, oil, gas); 18% from nuclear energy and only 3% from renewable sources (hydro electric, wind and solar)].

Using fossil fuels is ultimately unsustainable as they are finite resources and will eventually run out. Burning fossil fuels also releases carbon dioxide into the atmosphere and this is a significant driver behind climate change. Economically, fossil fuels such as oil and gas will also increase in price as world demand increases and capacity either lags behind or falls. Changes in the way we use fossil fuels are therefore inevitable and we also need to prepare for a future where fossil fuel is expensive and its use restricted. If we do not prepare now, future generations will face sudden and enormous changes, for which they will be un-prepared.

- 1.2 There are eight key themes to our strategy:

Community and Partner Actions. i.e:-

- Planning and Development
- Domestic Energy
- Transport
- Water and Flooding
- Waste
- Biodiversity and the Natural Environment
- Businesses and the Public Sector

The Council's Footprint

- 1.3 **What is climate change?**

The greenhouse effect is a natural phenomenon in which naturally occurring gases trap the sun's energy and warm the planet. The main greenhouse gas is carbon dioxide, CO<sub>2</sub>. Climate change is happening because of an increase in greenhouse gases – predominantly carbon dioxide – caused by human activity such as the burning of fossil fuels and deforestation,

Climate change is a global issue. Internationally, targets and frameworks have been established to tackle the issue – starting with the Rio conference in 1992 and the Kyoto

Protocol, which was agreed in 1997 and came into force in 2005. Further international agreements are expected in the future.

It is now accepted that if we do not address this issue, the Earth's climate will change significantly.

### 1.4 Why do we need a strategy?

Climate change is a significant challenge. We need to meet the challenge to ensure that development is sustainable and the well-being of future generations is safeguarded. The environmental, social and economic impacts of climate change are already measurable and these are predicted to continue and to grow in severity.

The new Climate Change Bill Act sets a target to reduce national CO<sub>2</sub> emissions by 80% by 2050 – compared to a 1990 baseline. This excludes emissions from international shipping and aviation. All local authorities will be expected to meet targets for their own emissions under the Carbon Reduction Commitment. This commitment will be led by the newly established Department of Climate Change and Energy

The Mayor for London has also issued a Climate Change Strategy to address this issue. The Climate Change Action Plan sets a target for London to limit its total carbon dioxide emissions to 600 million tonnes between now and 2025 – a reduction of 4% per annum. In addition to large scale changes to the way we meet our energy demands, such as using Combined Heat and Power (CHP), it also highlights the significant amount of CO<sub>2</sub> than can be saved by making small changes such as cavity wall and loft insulation and energy audits (by the public sector and businesses).

This strategy aims to identify and instigate actions which the council, other public agencies, businesses and the community can take to address these issues in Harrow.

The government has established a set of 198 National Indicators for measuring the performance of local authorities.

It has also agreed an LAA (Local Area Agreement) with each local authority in England for the next three years, which focuses on 35 of these indicators in particular that are regarded as particularly important for that authority. Table 1 shows (highlighted) the climate change related indicators and those that Harrow has agreed as part of its LAA.

Table 1

NI	Description	CC indicator	LAA indicator
167	Congestion – average journey time per mile during the morning peak		
175	Access to services and facilities by public transport, walking and cycling	Council has indirect influence	
176	Working age people with access to employment by public transport (and other specified modes)	Council has indirect influence	
177	Local bus passenger journeys originating in the authority area	Council has indirect influence	
185	CO <sub>2</sub> reduction from local authority operations		
186	Per capita CO <sub>2</sub> emissions in the LA area		
187	Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating		
188	Adapting to climate change		
189	Flood and coastal erosion risk management		
191	Residual household waste per head		
192	Household waste recycled and composted		
193	Municipal waste land-filled		
194	Level of air quality – reduction of NO <sub>x</sub> and PM <sub>10</sub> emissions through local authority's estate and operations		
195	Improved street and environmental cleanliness (levels of litter, detritus, graffiti and fly-posting)		
197	Improved local biodiversity – active management of local sites		
198	Children travelling to school – mode of transport usually used		

### 1.5 Sustainable Community Plan

The current Sustainable Community Plan identifies the need to build sustainable communities. It defines these as communities that meet the diverse needs of existing and future residents; are sensitive to their environment; and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all. A sustainable community balances and integrates the social, economic and environmental components of their community; and respects the needs of other communities in the wider region.

Locally, creating a sustainable borough means moving towards sustainable construction involving carbon neutral buildings; harnessing the use of energy from renewable sources; reusing grey water, and seeking to use partnerships to address climate change. It also means protecting environmentally sensitive areas while accommodating development for housing and employment in accessible locations; reducing domestic and business waste, promoting recycling, and public transport while recognising that the car is an integral part of life. This includes continuing to pursue the Council's Green Belt Management Strategy.

One of the challenges is to spread information and practical action more widely. It is hoped that, for example, older people will respond to the idea of leaving a habitable planet as a legacy to their children and grand children.

The Harrow Strategic Partnership (HSP) has overall responsibility for overseeing the Sustainable Community Plan and the Local Area Agreement (LAA). It plans and delivers improvements through a set of five management groups that specialise on different areas of activity. The management group that has responsibility of climate change is the Sustainable Development and Enterprise (SD&EMG). In turn, this group is supported by a delivery group called Greener Harrow, which gathers the latest thinking and best practice and challenges the Council and other partners to adopt and implement action to reduce the impact of climate change and mitigate the impact of changes that are already inevitable.

The Harrow Strategic Partnership has a responsibility to encourage businesses and residents to reduce emissions, to find cost effective measures to tackle climate change and to respond to extreme weather events through emergency planning.

Locally, in the next four to six years, the partnership will aim to

- Identify key actions for different groups in Harrow to make a contribution to environmental well-being;
- promote sustainability through the educational offer at schools and FE Colleges, through public information and through take up campaigns for government grants that support energy conservation, recycling and green transport
- promote sustainability in new buildings, through efficient energy use, increasing the amount of energy produced from renewable sources, and the use of grey water and rain water;
- make traffic improvement through schemes for walking and cycling to reduce reliance on private cars and reduce congestion;
- have in place comprehensive emergency plans in response to climate change.

Work is underway to refresh this Plan and replace it with a Sustainable Community Strategy which should, subject to public consultation, be considered in the Spring 2009.

The Nottingham Declaration was signed by the council on 25 July 2007. By signing it the council acknowledged “that evidence shows that climate change is occurring and that it will continue to have far reaching effects on the UK’s people and places, economy, society and environment.” One of the key commitments is: “Within the next two years to develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to our local priorities, securing maximum benefit for our communities.” This draft Strategy is part of this process.

### 1.6 Corporate Priorities

The council has proposed three corporate priorities for 2009/10. These will shape the Council’s actions and work programmes. They are:

- Cleaner and safer streets
- Improve support for vulnerable people
- Build stronger communities

### 1.7 Benefits of introducing a strategy

The council is already taking action to address climate change, through a number of activities such as increasing recycling, developing the Local Development Framework, the sustainable schools building programme and transport policy, to encourage walking and cycling. This strategy will result in these policies being better coordinated and lead to a reduction in CO<sub>2</sub> emissions. It will also address how we can mitigate and adapt to the changes that are inevitable.

Delivering the council's LAA and climate change targets will form an important part of the council's ambition to become one of the top-performing councils in London, and will be monitored by the Audit Commission when it is assessing the performance of the council.

### 1.8 Adaptation

Although the UK is now focussing its efforts on mitigating the effects of climate change, it is also acknowledged that we may be too late to completely reverse its effect.

What is uncertain is the degree to which our climate will change, and this is largely dependent on how quickly we act to mitigate the effect of climate change. The UK Climate Impacts programme (UKCIP) has identified that the main consequences:

- an increase in the risk of flooding and erosion
- greater pressure on drainage systems
- increased likelihood of winter storm damage
- loss of habitat for wildlife
- summer water shortages and low stream flows
- increased risk of subsidence (in areas where subsidence is already a problem)
- increased demand for summer cooling
- buildings becoming uncomfortably hot
- a range of health issues

The impact will vary based on how successful, globally, we are at mitigating climate change, and UKCIP have modelled four scenarios - low emissions, medium-low emissions, medium-high emissions and high emissions. If we are successful, then we will follow the low emissions scenario, but if we are not then we will face the high emissions scenario. Here are a few examples of the impacts that these would have on the UK . . . Under a high emissions scenario, we could see a decrease in rain fall in the summer months by up to 50%, with winters seeing an increase in rainfall by up to 30% by the 2080s. This would impact on water supply in summer months and require preventative measures against flooding in the winter months.

Between now and 2040, the average temperature is predicted to rise by 0.5°C to 1.0°C, and in a high emissions scenario the south east could see an increase in average temperatures of around 5.0°C by the 2080s. This would cause overheating in the summer, meaning we would need to adapt our homes to be cooler as well as warmer in the winter: overheating is a particular worry for cities as they suffer from the urban heat island effect. The temperatures experienced in the summer of 2003 are expected to be the norm by 2050. The increase in temperature in 2003 caused an extra 2000 deaths in the UK. Temperature increases would also affect the range of crops we can grow and the ability for certain species of plant to survive; it would affect design of homes and work places as well as impacting on the health of the population – it is expected that this will



also cause more incidents of food poisoning, heat exhaustion etc.. For more information on the UKCIP scenarios see [www.ukcip.org.uk](http://www.ukcip.org.uk) .

The new Mayor for London has recently published a London Climate Change Adaptation Strategy, which proposes a series of risk management actions, starting with the most pro-active measures and then becoming increasingly reactive:

- Prevent – action taken to reduce the probability of an impact or change occurring, for example raising flood defence barriers
- Prepare – action taken to better understand the climate risk or opportunity, to reduce vulnerability and improve resilience, for example raising public awareness
- Respond – action taken to limit the consequences of an event, for example restricting non-essential water use during a drought
- Recover – action taken after an event to enable a rapid and cost-effective return to a normal, more sustainable state, for example enhancing the flood resilience of a property when undertaking flood damage repairs

Under the new national indicators we are expected to report on how well Harrow is adapting to climate change (NI188- Adapting to Climate Change). In Harrow, we need to address the following areas across our council operations and our community:

- Impact of overheating
- Impact of flooding
- Impact of water stress
- Impact on health

It is expected that more areas will become relevant to Harrow, as our knowledge of the impact of climate change expands in the UK. The council's emergency and contingency planning will need to incorporate these effects/impacts.

### **1.9 Air Quality**

The effect of this strategy, on air quality, will be an important consideration to ensure that no unintended adverse impacts are produced. Poor air quality can have significant health impacts on the population and it is important that these are not ignored

### **1.10 Who will be responsible for delivering the Strategy?**

Everyone has a responsibility for tackling climate change. As a community, we need to work together and understand the different roles we have to play in addressing this challenge.

The council has an important part to play as a provider of services and as a manager of its buildings and vehicles. It also has an important role in setting an example and spreading good practice.

The council will develop annual Action Plans to deliver this strategy.

# 1 Planning and Development

## 1.1 Issue

Over 50% of all CO<sub>2</sub> emissions come from buildings.

Planning can ensure that new developments (including refurbishments and extensions) and communities are designed to be more energy efficient and sustainable.

Building Control currently ensures that minimum standards, in accordance with Part L of the Building Regulations (Conservation of Fuel and Power), Schedule 1 of the Building Regulations 2000, are applied to new buildings and some refurbishments and extensions. Some building work is controlled by independent Approved Inspectors and some work is covered by "Self certification schemes", which are not subject to council control.

Heating of buildings has been the focus of building services in the past, but with warmer winters and hotter summers it is likely that cooling buildings will become increasingly important.

Adapting existing buildings will be a major challenge in meeting our climate change targets simply because it is unlikely that the majority of the existing housing stock will be redeveloped.

Planning can also have an impact in reducing reliance on cars by promoting development in areas with good access to public transport and restricting the amount of parking provided in new developments.

## 1.2 Indicators

**NI 175:** Access to services and facilities by public transport, walking and cycling

**NI 176:** Working age people with access to employment by public transport (and other specified modes)

**NI 177:** Local bus passenger journeys originating in the authority area

**NI 186:** Per capita CO<sub>2</sub> emissions in the LA area

**NI 187:** Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating

## 1.3 What we are doing/will do

- a) Continue to develop the Local Development Framework (LDF) – providing overarching policies/strategies for the development of the borough, including how we will address the issues of climate change, mitigation and adaptation
- b) In consultation with relevant parties, develop and adopt a Sustainable Design Supplementary Planning document (SPD) to encourage designers to think about sustainability and climate change issues in compliance with the London Plan. This has already been subject to public consultation and is expected to be adopted early in 2009
- c) Ensure compliance with building regulations for new builds, extensions and alterations that are controlled by the council e.g. replacement boilers; replacement windows; roof insulation and retiling; electric rewiring; installation of low energy bulbs and external lighting
- d) Work with Approved Inspectors and Self Certification schemes to promote the early adoption of higher environmental standards

## **Section 1: Community and Partner Action**

- e) Review options for enforcing Part L of the Building Regulations (Conservation of Fuel and Power), Schedule 1 of the Building Regulations 2000
- f) Develop a Section 106 SPD which seeks to encourage/promote sustainable best practice and contributes to an education fund to promote sustainable development issues to the general public.
- g) Promote and educate residents and builders about of good practice on sustainability and climate change.

## 2 Domestic Energy

### 2.1 Issue

This section deals with energy use in residential property within the borough.

The domestic sector accounts for 38% of energy consumption in London\*. This is used for space heating/cooling (54%); hot water (18%); appliances (18%); lighting (5%) and cooking (3%). The Mayor of London's Climate Change Action Plan envisages the domestic sector contributing 39% of the 2025 carbon reduction targets.

(\* The figure for Harrow is 47%).

Over the next decade the number of households in Harrow is expected to increase with an estimated 4000 new homes being built. The planning process will be used to ensure that these new homes meet high environmental standards. See section 1.

It is estimated that 70% of today's housing stock will still be in use in 2050 - meaning the main focus of the activity in Harrow will centre on our existing housing stock, i.e. retrofitting and adapting existing properties so that they continue to be habitable as the climate changes..

The borough's housing stock is predominantly private sector with owner occupiers accounting for 77%. Carbon reductions in this sector will mainly rely on residents taking action and the council will need to direct its efforts towards influencing change.

Improvements within our own (council housing) stock are also key, and will continue to be met through the decent homes standard, which has a more environmental focus from 2010. The decent homes programme so far has enabled the council to achieve an average SAP rating of 64.

The most recent Private Sector Housing Stock condition survey produced an average SAP rating of 49.

The London Climate Change Action Plan sees energy supply meeting 44% of the carbon reductions for existing housing, 18% from behaviour change and 23% lighting and appliances and 10% from thermal efficiency (improving the energy efficiency of the building). This means providing loft insulation and wall insulation.

In Harrow the potential savings from wall insulation are higher (than the London average) as only 33% of the borough's properties have solid walls – a stark contrast to inner London boroughs. This means that around two-thirds of the borough can benefit from cavity wall insulation that is cheap and simple to install.

Insulating solid walls is more difficult but can be sensibly addressed during refurbishment and decoration when the internal surfaces of external walls can be dry lined.

Behavioural change in relation to domestic energy, as the case in other areas, will also achieve significant carbon savings for Harrow.

One of the links to climate change and domestic energy is fuel poverty. Fuel poverty is defined as when a household spends more than 10% of its income on energy. Recent increases in energy costs have pushed more households into fuel poverty. In 2005, the Private Sector Housing Stock condition survey showed that 5% of the borough was in fuel poverty; and since then fuel bills have risen by 125%, making this figure more likely to be 8 – 10%. Without action to conserve energy this position is likely to deteriorate further. Three steps to tackling fuel poverty are to increase income, improve the energy efficiency of the building and to get the best deal from fuel suppliers for that resident.

## Section 1: Community and Partner Action

Improving energy efficiency also generates other benefits for low income families: reduced expenditure on fuel; a reduction in asthma cases; improved health and fitness; improved performance at school; and a reduction in crime and vandalism.

Grants are available for heating and insulation works for the private sector, from national, regional and local government. The CERT programme, funded by targets set against the Energy Companies, delivers a large amount of the funding for insulation measures, which can be used for both council owned and private sector housing. However the funding for solid wall properties is still small compared to the cost of installing it. Heating for private sector homes is available for vulnerable households; nationally the Warm Front scheme provides a grant for up to £2700 for households in receipt of benefits. Regionally the West London Warm Zones scheme offers free heating for households in receipt of benefits and for those properties with a SAP less than 35. In Harrow we currently have grants for households in the private sector, such as our No Excuses grant for vulnerable households, and our Heating Harrow Greener renewable energy scheme. For more information visit [www.harrow.gov.uk/energy](http://www.harrow.gov.uk/energy). More funding is set to come this way from central government to help tackle fuel poverty and the Mayor of London has agreed to proceed with the Low Carbon Zones programme. It is likely that this funding will be delivered by local authorities, so we need to demonstrate a clear commitment to fuel poverty and climate change, and have in place a strong infrastructure to show we will be able to deliver.

### 2.2 Indicators

There are three relevant National Performance Indicators: -

**NI 186:** Per capita CO<sub>2</sub> emissions in the LA area.

**NI 187:** Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating

**NI 188:** Adapting to climate change

### 2.3 What we will do

The following table shows the improvements we believe will need to be made over time:

Sector	% of housing stock	Average SAP rating		
		Current	2012 target	2020 target
Owner occupier	77	49	69 solid walls 83 cavity walls	91
Council owned	6	64		
Private renting	12	49		
Housing Association	4.4	?		
Other	0.6	?		

The above table assumes, as a minimum: -

- All lofts to be insulated by 2012
- All central heating systems to be equipped with condensing or micro CHP boilers, programmer and thermostatic radiator valves (TRVs) by 2012
- All cavity walls will be insulated by 2012
- All solid walls to be insulated by 2020 (mainly by internally dry-lining but with some exterior insulation where appropriate)
- All windows to be double-glazed by 2020. All new windows to be Class A double-glazed as a minimum.

## **Section 1: Community and Partner Action**

We will do this by:

- a) Encouraging all landlord/homeowners in the borough to install loft insulation to modern standards by 2012
- b) Encouraging all landlord/homeowners in the borough with property with cavity walls to install cavity wall insulation by 2012
- c) Provide technical and practical advice (directly and via the council's website) to builders, decorators and landlords/homeowners on options for installing insulation in houses that have solid walls.
- d) Providing advice to residents on how to reduce energy consumption in the home.
- e) Providing advice and grants to landlords and homeowners on opportunities for installing solar panels etc.
- f) Complete the fuel poverty strategy
- g) Promotion and education

## 3 Transport

### 3.1 Issue

Excluding aviation and shipping, emissions from transport accounts for 22% of all carbon emissions in London. This is from the following sources: - cars and motorcycles (49%); road freight (23%); ground-based aviation – taxiing etc. (11%); and the remainder is from public transport (trains, the underground, buses and taxis etc. – approx. 4% each).

Government legislation and technological advances mean that these emissions can be expected to fall as new vehicles become more fuel efficient. However it remains the case that most cars on the road do not meet current emission standards and a majority of car trips are for short distances and these will continue to be inefficient journeys as the vehicle will not be at optimum working temperature. These emissions also have significant adverse effect on air quality and public health.

The Mayor's Transport Strategy drives transport strategy in London.

The provision of Public Transport is primarily the responsibility of TfL (Transport for London) and the railway companies, with little input by the council.

Cycling and Walking are low-carbon forms of transport, which can also make a significant contribution to the well-being and general fitness of the individual. These will continue to be promoted and encouraged.

### 3.2 Indicators

**NI 175:** Access to services and facilities by public transport, walking and cycling

**NI 176:** Working age people with access to employment by public transport (and other specified modes)

**NI 177:** Local bus passenger journeys originating in the authority area

**NI 186:** Per capita CO<sub>2</sub> emissions in the LA area

**NI 198:** Children travelling to school – mode of transport usually used

The council has little or no influence over the first three of these indicators.

### 3.3 What we are doing/will do

- a) Prioritise, in the LDF, developments near to existing public transport facilities
- b) Change the public's behaviour by encouraging walking and cycling or the use of public transport will be an important priority.
- c) Support bus priority measures, and promote cycling and walking initiatives.
- d) Encourage school and workplace travel planning,
- e) As Resident Controlled Parking schemes are extended, parking permits for second and subsequent cars will continue to attract a premium. Free vehicle parking permits will continue to be available for environmentally friendly vehicles.
- f) Incorporate the General Purposes Development Order (October 2008) requirement that front garden hard standing be subject to planning permission.
- g) Investigate how to support the provision and expansion of car clubs.
- h) Promote the provision of electric vehicle charging points.
- i) Promote travel planning through the planning process
- j) Promotion and education

## 4 Water and Flooding

### 4.1 Issue

Climate change is expected to lead to two problems with water supply – periods of drought; and periods of heavy rainfall. Coupled with an anticipated growth in population and the number of households, there is likely to be pressure on the availability of water supply and more incidents of flooding.

Daily water consumption per head is relatively high in Harrow at 170 litres/head of population (cf. the national average of 150 litres/head).

Provision for reduced water consumption will be made progressively for new housing under planning and building regulations but, as with energy use, bringing down consumption in the existing housing stock will prove to be more difficult.

Partners:

Three Valleys Water – water supply

Thames Water – sewage treatment

Environment Agency

Mayor of London – e.g. Drain London project.

### 4.2 Indicators

**NI 186:** Per capita CO<sub>2</sub> emissions in the LA area

**NI 188:** Adapting to climate change

**NI 189:** Flood and coastal erosion risk management

### 4.3 What we are doing/will do

- a) The proposed Sustainable Design SPD encourages new developments to:-
- reduce water consumption per head of population;
  - increase the use of water harvesting to increase storage capacity for rainfall and reduce the use of potable water; and
  - include Sustainable Urban Drainage Schemes (SUDS) to control surface water run-off
  - ensure that new developments will not adversely affect the sewer system via controlled discharge, SUDS etc.
- b) The proposed Sustainable Design SPD will also address the problem of impermeable paving being used in front gardens. A new policy will now require that a minimum of one third of front gardens adapted for hard-standing must be permeable.
- c) Consult with the Environment Agency on any proposed developments within or near to flood plains.
- d) Include the Strategic Flood Risk Assessment (SFRA) as part of the LDF
- e) Implement a Surface Water Management Plan (SWMP) from the Flood & Water Bill.
- f) Encourage the public to install water meters to promote awareness of water usage and encourage minimisation.
- g) Promotion and education to builders, and the general public, via seminars and the website etc. of best practice in respect of reducing water consumption (e.g. dual flush toilets, low-flow showers and taps etc.) and the harvesting of rain and grey water.



## 5 Waste

### 5.1 Issue

The appropriate collection and disposal of waste has been a growing problem over the last few decades with volumes of waste growing and relatively poor recycling performance. In the UK a large proportion of municipal waste has been land-filled and this has resulted in the production of significant volumes of methane from landfill sites.

In recent years the European Landfill Directive and national legislation and regulations have resulted in a significant increase in recycling and composting and a corresponding decrease in the amount of waste being land-filled. By 2020, the amount of biodegradable municipal waste being land-filled by councils must reduce to 35% of the tonnage recorded in 1995.

In Harrow we have increased the amount we recycle and compost very significantly in recent years and expect to reach a rate of 42% in 2008/9 (the second highest rate in London). As part of the Local Area Agreement we aim to reach 50% by 2010.

Responsibility for waste disposal of municipal waste resides with the West London Waste Authority (WLWA) (which serves six councils in west London – Brent, Ealing, Harrow, Hillingdon, Hounslow and Richmond). A joint waste strategy was agreed in 2006 which is intended to meet the requirements of the Landfill Directive and the Waste and Emissions Trading (WET) Act.

### 5.2 Indicators

**NI 191:** Residual household waste per head

**NI 192:** Household waste recycled and composted

**NI 193:** Municipal waste land-filled

### 5.3 What we are doing/will do

- a) Publish a revised waste management strategy for the borough to increase further the amount of municipal waste we recycle and compost – to 50% by 2010.
- b) Work with WLWA and the other five constituent authorities to procure alternatives to the use of landfill for the disposal of residual waste. To ensure that the strategy maximises the opportunities for the production of renewable energy and that any process has a minimum energy efficiency of 65%.
- c) Work with WLWA to source a local Anaerobic Digestion (AD) plant for the processing of food waste.
- d) Produce a joint Waste Development Plan Document (DPD) with five other West London boroughs to identify sites for the treatment of waste within the west London area in accordance with the London Plan.
- e) Ensure that development sites produce Site Waste Management Plans to deal with the waste generated.
- f) Promotion and Education

## 6 Biodiversity and the Natural Environment

### 6.1 Issue

Climate change means that the seasonal weather patterns we are familiar with are changing. It is difficult to predict precisely what these changes will be but it seems clear that we will experience milder winters, earlier springs and warmer summers. Periods of drought or low rainfall will become more frequent as will instances of heavy, prolonged rainfall. There is also a significant danger that storms will become more frequent and of higher intensity. All this will have an effect on the natural environment and biodiversity.

Trees in the urban environment have the potential to reduce the heat island effect by providing shade and cooling. However the management of such trees needs to be carefully considered to ensure that they can survive in the sort of conditions that will exist.

Of particular concern in Harrow is the age of the current tree stock, much of which is coming to the end of its natural life and requires replacement.

The maintenance of trees is another issue. Proper cyclical maintenance helps to ensure the safety of the public and to prevent root damage to adjacent buildings. Production of wood chip is also a potential source of renewable energy.

### 6.2 Indicators

**NI 197:** Improved local biodiversity – active management of local sites

### 6.3 What we are doing/will do

- a) We have adopted a Biodiversity Action Plan, which we will review periodically to ensure that it responds to the changing climate.
- b) Publish an Allotment Strategy that addresses climate change and encourages allotment holders to adopt practices that encourage biodiversity (as part of the LDF).
- c) Publish a tree strategy that addresses climate change in terms of identifying species of tree that will be able to survive in the changing climate, ensuring that the number of trees helps to reduce the heat island effect, and that considers how tree waste can be used to help deliver a sustainable energy programme (as part of the LDF).
- d) Ensure that parks and open spaces have wild areas with reduced maintenance regimes to promote biodiversity (and reduce the carbon impact of maintenance functions)
- e) Consider establishing Environment/Information centres in Green Belt areas.
- f) Reduce the number of sites with seasonal bedding displays and replace with herbaceous planting that require less water, material and energy inputs and reduce transport impacts.
- g) Review hanging basket provision (for similar reasons).
- h) Ensure that all street refurbishment schemes include the provision of tree pits, where possible.
- i) Aim to increase the tree planting programme to plant 2000 trees each year
- j) Improve the maintenance of trees to mitigate the negative impact of stronger winds etc. and extend the life of the existing tree stock.
- k) Encourage residents and businesses to maintain gardens and planted areas in a manner that encourages wildlife
- l) Ensure that Biodiversity is considered as part of the planning process
- m) Where appropriate, use Section 106 Agreements to support the management of areas of important biodiversity

## 7 Food, Fair Trade and Sustainable Shopping

### 7.1 Issue

Agriculture and food production is an issue of growing concern in the climate change debate. Current intensive farming methods are oil dependant and produce a high carbon footprint associated with the use artificial fertilisers and the fuel used in production and transport.

Cotton growing accounts for 50% of the worldwide use of pesticides.

DEFRA data for 2006 showed that the UK was only 58% self-sufficient in food, with 90% of all fruit and 50% of all vegetables being imported. The carbon foot print from sourcing produce from other countries is high and is expected to rise in the future.

The diversion of food production into bio-fuels is one of the factors driving the destruction of rain forests and rising food prices.

The livestock industry produces a mix of greenhouses gas, especially methane. In 2006 the United Nations Food and Agricultural Organisation reported that emissions from livestock accounted for 18% of the human impact on the climate. One of the driving forces behind for clearance of rainforests has been to increase the production of crops for animal feed.

The UK Climate Impacts programme predicts that the average temperatures in the South East could rise by up to 5°C by 2050. This will effect the operation of the agricultural industry, as it will mean a certain crops will have longer seasons, but will affect what crops will survive and how we will sustain them with increased pressures on water resources. Today, two-thirds of water abstracted from the environment is used to irrigate crops. Higher temperatures will also increase threats from pests and disease.

Locally produced food, organic and fair-trade produce have lower carbon foot prints and could hold the key to reducing carbon emissions from food production.

There are no national targets for local authorities.

### 7.2 What we are doing/will do

- a. Provide educational materials for residents on the benefits of buying local sourced produce
- b. Support and promote the farmers market in Pinner.
- c. Provide educational materials for residents on how to grow their own vegetables
- d. Promote the use of allotments and gardens for growing food.
- e. Encourage people to shop locally.
- f. Promote the use of local delivery schemes from farmers in the South East region.
- g. Promote purchasing organic produce, which usually yields a lower carbon foot print
- h. Establish Harrow as a fair trade borough.
- i. Support schools and local community groups in encouraging them to grow their own crops, and to help them access funding such as the [www.localfoodgrants.org](http://www.localfoodgrants.org)
- j. Promote the use of using re-useable bags when shopping, and encourage local business to cut down on the amount of carrier bags they use.
- k. Promote the use of purchasing goods that can be re-filled and reused, and encourage businesses to use less packaging

## 8 Businesses and the Public Sector

### 8.1 Issue

Reducing the carbon emissions of local businesses and the public sector will be an important element in the delivery of this strategy. The commercial and public sector account for 33% of the total emissions in London, with the industrial sector accounting for an additional 7%. The Mayor's Climate Change Action Plan identifies 39% of the carbon savings needed to meet the 2025 London target can be met by reductions in this sector.

Energy usage accounts for most of the carbon emissions. In the 2006 London Energy and CO<sub>2</sub> inventory it showed that heating accounted for most of the energy usage at 36%, with lighting second at 26%, catering accounted for 11% and interestingly cooling only 6%, which is predicted to rise as the average summer temperature in the UK increases.

The London Climate Change Action Plan recommends that 50% of carbon savings can come from energy supply, with 25% coming from staff behavioural change, with 20% being sought from physical changes to the building.

In Harrow, business and non council owned public buildings produce 29% of the overall emissions. The 2006 Vitality Profiles cite that that they were 4,852 businesses registered in the borough in 2005. Analysis of 2004 Harrow data showing employment by sector, indicates that distribution/ hotels/ restaurants, banking/finance/ insurance and public administration/ education/ health sectors account for the biggest employment in the borough.

The demand for greener living has the potential to offer more employment in the borough. Improving a business's sustainability should also help it to: -

- Increase efficiency
- Reduce costs
- Increase profits
- Improve staff retention
- Raise the profile of the business
- Future proof it against legislation

The council already has contacts with the business community, i.e.

- Large Employer Network (LEN). i.e. major employers in the borough.
- Harrow in Business (HIB). Holds four meetings a year with the council. The meetings provide a route for discussions with SMEs. On average about 60 people attend each meeting.
- Business Improvement District (BID) for the town centre.

Sustainability issues have also been addressed in the "Enterprising Harrow" strategy.

To find out how Harrow corporately is reducing carbon emissions, please refer to section two.

### 8.2 Indicators

NI 186 – Reducing CO<sub>2</sub> emissions per capita in the LA area

### 8.3 What we are doing/will do

- a) Provide businesses with recycling services via our trade waste service

## **Section 1: Community and Partner Action**

- b) Provide, in partnership with the London Smart works programme a free energy, water and waste audit for SME's in the borough. The scheme will run from 2009 – 2011 and will deliver over 40 audits for businesses. The scheme includes a 6 months support service following the audit.
- c) Our partners in the public sector will be involved via the Sustainable Community Strategy, and through our action plan we will develop support service to help other public bodies reduce their carbon foot print
- d) Establish the Harrow Business Environment Exchange (Harrow BEE) that will be an information service for business to share knowledge and best practice on sustainable issues. The exchange will also hold seminars and work shops for businesses. The network will encourage business to apply for national green awards.
- e) Establish the Green Harrow Awards through Harrow BEE and the Smart works programme we will to raise awareness and reward good practice.
- f) Promote national programmes available for businesses, such as the Carbon Trust's interest free loans scheme for SME's.
- g) Encourage businesses to sign up to the Mayor of London's Green Procurement Code.

## 9 The Council's Footprint

### 9.1 Issue

This section deals with the council's staff, in-house and contracted out services, transport fleet and building stock – including schools.

The Carbon Reduction Commitment has been incorporated within the Climate Change Act and is legally binding programme on local authorities to cut their CO<sub>2</sub> emissions as a result of their own activities and the activities of their partners and contractors. The CRC starts in April 2010 and includes energy use in schools.

It is now a legal requirement to display a "Display Energy Certificate" – DEC – in each building, which is a large user of energy, showing the energy efficiency of the building. Harrow has completed surveys in the 62 buildings (that exceed the threshold) with an outcome ranging from B (energy efficient) to G (lowest grade). The DEC ratings show that 70% of the buildings surveyed are below the national average. There is therefore a clear need for investment in energy saving measures to bring them to the typical level or above.

Councils will also be required to join the European Carbon Trading System to purchase permits for producing carbon from April 2010. The price of carbon will be £12 a tonnes for the first three years and will then be established by a market mechanism. It is expected to increase to approx. £40 per tonne (The First Report of the Committee on Climate Change: Dec 2008, uses £40 as a long-term price). This will put additional financial pressure on the council. Thus, carbon reduction will be an important element in controlling the council's overall budget.

The council is a major employer and provider of services in the Borough. In providing these services in 2007/8 it used: -

**Energy.** The council uses energy in the following ways:

- **Heating, lighting and cooling etc.** (i.e. the civic centre, depot, schools, libraries etc).
  - 28,519,684 kilowatt-hours of electricity (of which approx. 40% was supplied by a green energy supplier)
  - 63,455,072 kilowatt-hours of gas

(This represented total expenditure of approx. £4.8m in 2007/8. Estimated expenditure in 2008/9 is approx. £6m).

The total carbon footprint for the above activities is estimated to have been 26,771 tonnes in 2007/8

- **Street lighting** accounted for 5,700,000 kilowatt-hours of electricity. This was supplied from a green energy supplier.

The total carbon footprint for the above activities is estimated to have been 0 tonnes in 2007/8 as this was supplied from a green energy supplier.

#### - **Transport**

The council uses petrol, diesel and LPG, directly in the provision of services such as refuse collection, schools transport, street cleaning, meals on wheels, etc

The council's private sector partners provide services such as highways maintenance, street lighting, building maintenance etc.

Council officers also use petrol, diesel and LPG in the provision of services to residents and businesses by the use of their own cars (for which the council makes mileage payments

## Section 2: The Council's Action

The total carbon footprint for the above activities is currently not known.

### **- Travel to Work.**

The council's staff also use a variety of means to travel to and from work. At present we do not know what the carbon footprint for this activity is.

A Green Travel Plan for staff travel to work was undertaken in 2006. It established that 79% of staff travel to work by car. This Plan will be reviewed as part of this strategy.

### **Procurement**

The council also buys in approx. £93m goods and services each year. At present we do not know what the carbon footprint is for these.

We have signed the Mayor's Green Procurement Code at the basic level.

### **Water**

The council uses over 550,000 cubic metres of potable water each year for drinking, building services, street cleaning and washing, vehicle washing, and watering grass and flowerbeds (approx half of this is used by schools). This is all carbon-rich, high quality drinking (potable) water. The provision of water contributes an average of 2% of total energy use in the country. Reducing water usage – particularly potable water, would therefore contribute to an overall carbon reduction in the borough. Corporate expenditure on water is over £1m a year. This is expected to increase at greater than the rate of inflation.

In 2007/8 we also purchased approx. 175,000 litres of bottled water – 165,000 litres in reusable bottles for office water cooler machines and 10,000 litres in one-trip plastic bottles.

### **Waste**

The total amount of waste produced by the council is not currently known: some premises use private contractors to collect their waste; the in-house refuse collection fleet is not currently equipped with on-board weighing equipment; and, the uptake of recycling is mixed.

Approx 425 cu.m of waste is collected by the in-house service each week from council premises. This is approximately equal to 11,000 tonnes per year. Of this approx. 38% is separately collected for recycling. Schools account for 70% of the total and recycle about 50% of their waste.

Recycling from offices mainly takes place at the civic centre and central depot sites.

## **9.2 Indicators**

NI 185: CO<sub>2</sub> reduction from local authority operations

NI 188: Adapting to climate change

NI 193: Municipal waste land-filled

NI 194: Level of air quality

## **9.3 What we are doing/will do**

- a) Establish our baseline carbon footprint.
- b) Complete DEC surveys for all properties over 50 sq. m by 2012

## Section 2: The Council's Action

- c) Plan to make an annual saving of 4.0% on our carbon footprint by targeting buildings that have high energy footprints and low thermal efficiency. (Note: this represents an annual saving of £240k at today's prices – excluding any carbon pricing)
- d) Plan to reduce our potable water consumption by 2.5% a year. This represents an annual saving of £25k at present day prices.
- e) Establish a corporate programme to identify: - how this reduction is to be achieved; how current investment plans will help to deliver the change; what action is needed to close any gap (e.g. the existing schools redevelopment programme will realise some reductions in energy use); and, how revenue savings can be used to pay for the necessary investment.
- f) Require all Cabinet reports to set out the environmental /climate change implications of the recommendation being made
- g) Introduce a system of carbon budgets to enable responsibility for meeting our targets to be delegated down to departments and managers.
- h) Formulate a publicity and education strategy for all levels of staff identifying training needs and awareness.
- i) Ensure that Climate Change is incorporated into the Sustainable Community Strategy.
- j) Ensure that the Community Risk Register includes climate change impacts
- k) Investigate how to reduce the amount of energy used in street lighting.
- l) Implement an office waste recycling scheme in all council buildings to recycle or compost 50% of the council's own waste by 2010.
- m) Agree a corporate policy on the use of recycled paper.
- n) Review our internal organisation to promote climate change initiatives across the council, its partners and residents
- o) Explore opportunities to establish a capital fund to implement energy saving projects
- p) Review the council's Green Travel Plan for staff travelling to work with a view to encouraging and providing incentives for more staff to utilise public transport, walking and cycling.
- q) Develop and implement a car parking policy that shows a steady reduction of parking availability at Council Offices.
- r) Agree a carbon reduction programme with our private sector partners (Enterprise and Kier)
- s) Achieve the GOLD standard for procurement under the Mayor's Green Procurement Code by 2012.
- t) Identify opportunities for improving the insulation of our existing building stock
- u) Ensure that all new corporate buildings comply with the BREEAM Excellent rating
- v) Identify opportunities for using renewable energy in all our buildings and land (including parks and open spaces, schools and playing fields etc.) i.e. solar energy, ground source heat pumps, wind turbines etc.
- w) Investigate the development and installation (with the private sector) of significant Combined Heat and Power Plants for council buildings, schools, adjacent housing and business use.
- x) Identify opportunities to reduce the carbon footprint of our direct transport fleet as the different service fleets are renewed.



## **Section 2: The Council's Action**

## Public consultation

This is your chance to comment on this draft Climate Change Strategy. The document will be subject to public consultation for a period of eight weeks (From Monday 2<sup>nd</sup> February 2009 to Sunday 29<sup>th</sup> March 2009). The council will consider a report on the issues raised during the consultation and may make changes as appropriate before adopting the document

The draft Strategy is available to view on the council website [www.harrow.gov.uk](http://www.harrow.gov.uk) and at public libraries throughout the borough

The document sets out a range of actions which the council is proposing to promote and deliver the necessary change in its own operations and in the wider community. It is not a programme of specific proposals and will need to be developed into a series of annual Action Plans to ensure that its objectives are delivered.

Any comments should be sent to:

London Borough of Harrow  
Climate Change Strategy Consultation  
Civic Centre  
Station Road  
Harrow HA1 2UZ